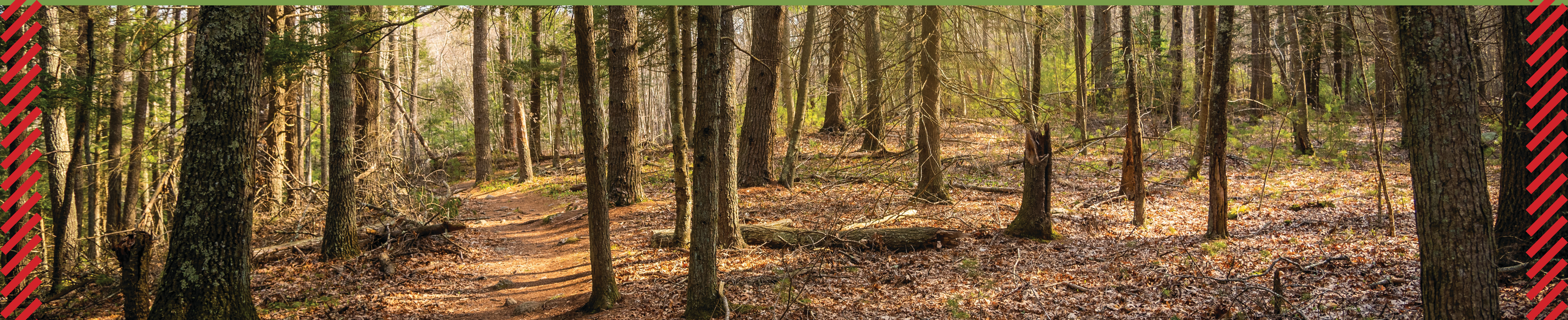


Chapman's Landing

Hanover, MA



Freshwater Tidal Marsh and Estuary

This section of the Indian Head River is a unique freshwater tidal marsh habitat, one of only a few left in the state, and is connected to the North River tidal estuary downstream. A freshwater tidal marsh is influenced by the tides downstream but is still freshwater. Downstream, the North River is a tidal estuary, where the freshwater meets the incoming saltwater from the ocean. There, the water is brackish, both fresh and salty. The North River is a salt wedge estuary, meaning that the fresh water from the river sits atop the incoming salt water from the ocean.

Fun Fact:

Salinity (salt water) at the bottom of the river can be detected as far upriver as the Washington Street Bridge!

Tides

Even though this section of the North River is over 12 miles from the coast, the ocean's tide still plays a major role in the flow and water level of the Indian Head River. Tides are caused by the moon's gravitational pull on the Earth, which is why when visiting this location on different occasions, visitors will notice differing water levels and directions of flow.

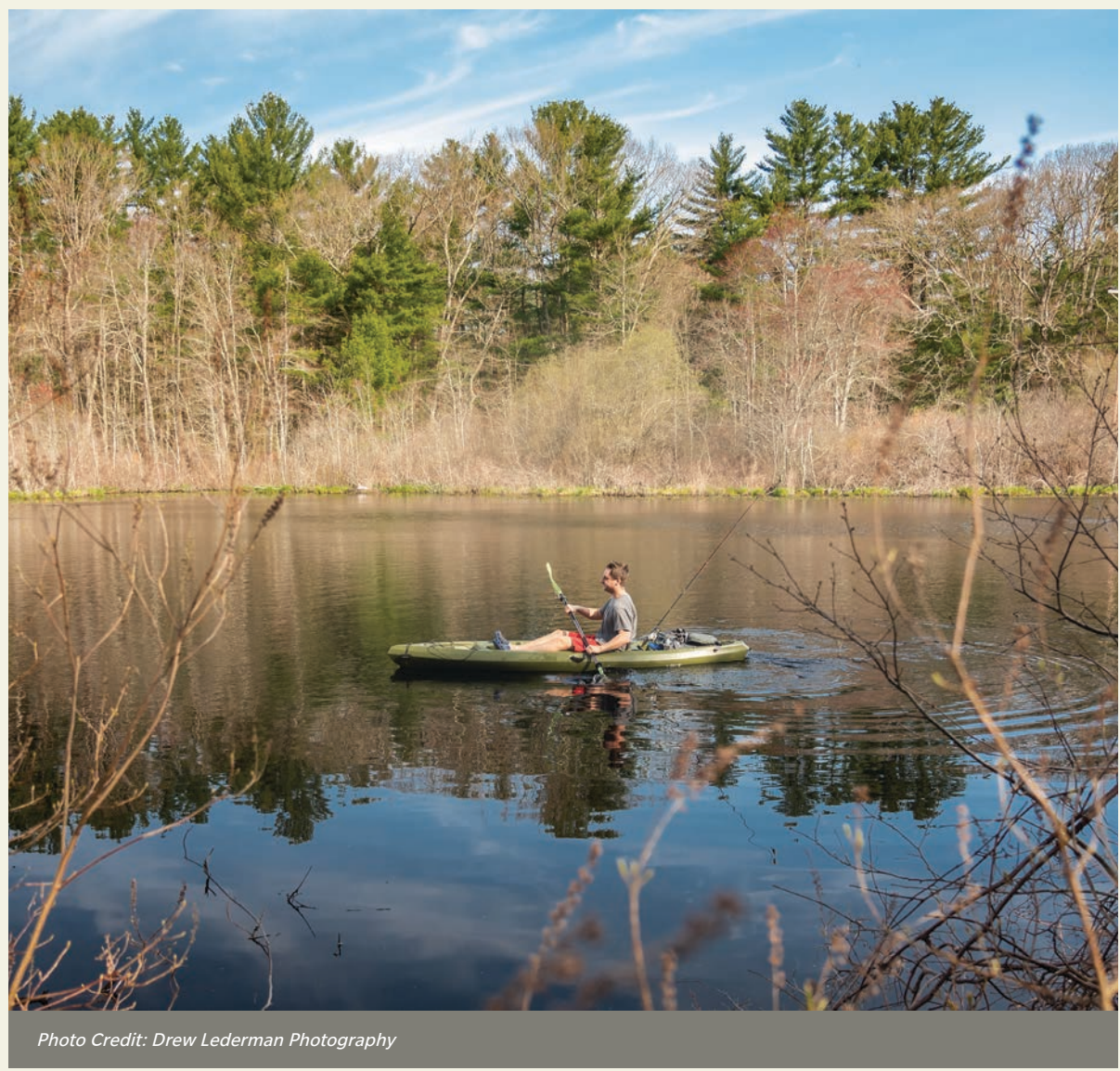
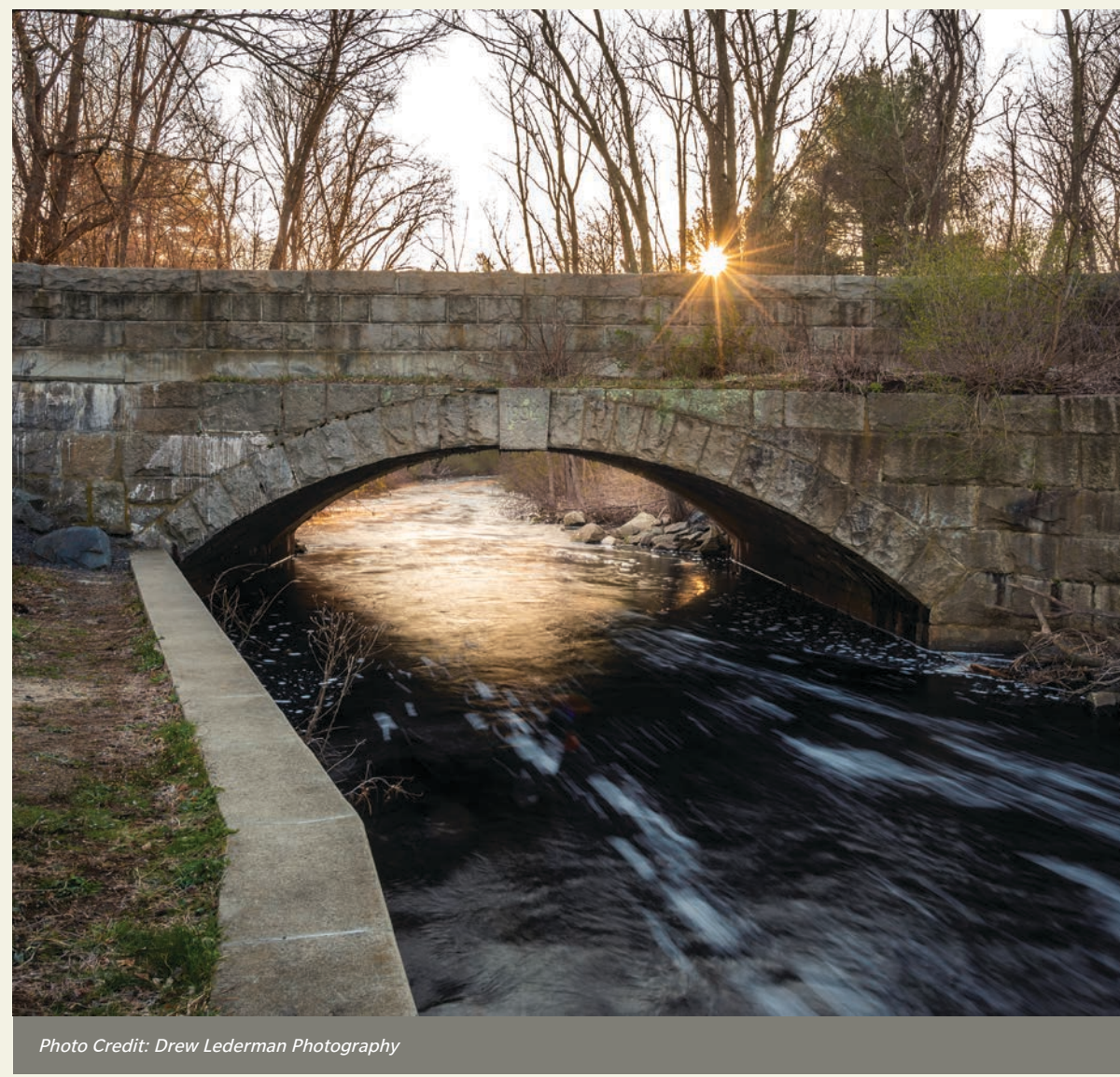
Paddling and Tidal Calculations

The Indian Head River and upper reaches of the North River provide paddlers with a unique and amazing opportunity. The ecology of this freshwater marsh and tidal estuary system is unlike many other local rivers. Paddlers will be immersed in a vast expanse of the freshwater marsh. Many unique native plant and bird species can be observed here at different times of the year. Some species that live here include wild rice, cardinal flowers, sedges and rushes, cattails, blue herons, osprey, bald eagles, fisher cat, mink, river otter, cray fish, freshwater mussels, eels, lamprey, snapping turtles and painted turtles. (*Phew!*)



When paddling these waters, be sure to plan according to the tides. The ocean's tide begins to rise at the mouth of the river and it takes 3-3.5 hours for the incoming tide to be seen here. The same goes for the outgoing tide. Use extreme caution if paddling downstream to the Old Washington Street Bridge. The tides can create difficult and dangerous paddling conditions as the river velocity is increased under any bridge or road crossings. The North and South Rivers Watershed Association offers guided paddles and resources for using the rivers safely (www.nsrwa.org).

Check the tides for the North River online prior to your visit.



Rules & Regulations

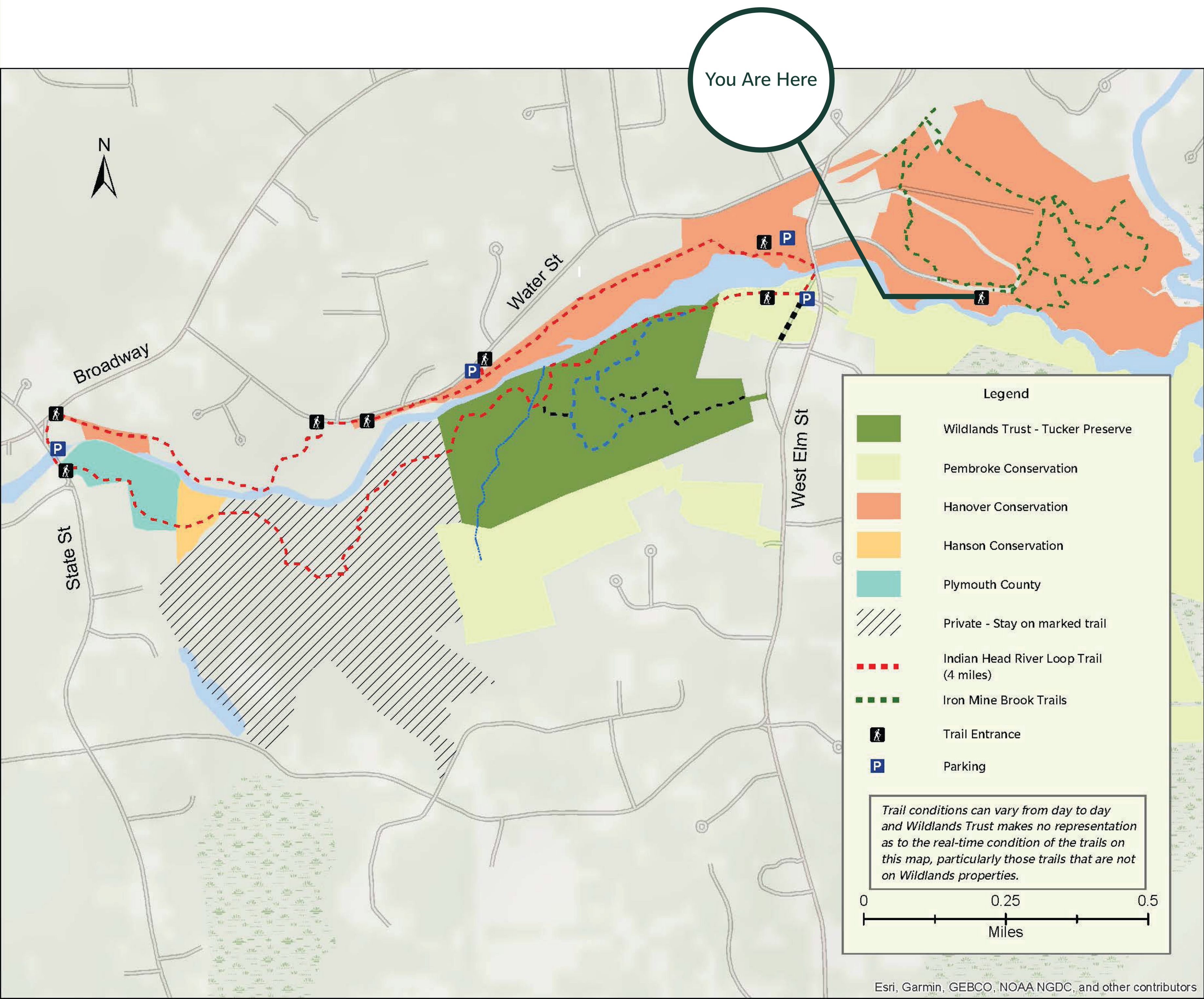
Please, respect the land & enjoy your walk!

- No motorized vehicles (except those that qualify with all ADA requirements) are allowed on any conservation/open space parcel other than within parking areas. This includes cars, trucks, recreational vehicles (RV), all terrain vehicles (ATV), motorcycles, dirt bikes, scooters, or any other vehicle that has a motor or engine.
- Plant materials, vegetation, cuttings, soils, etc., shall not be removed for any reason.
- All trash and other materials brought into a site must be removed at the conclusion of an event.
- No dumping of materials or infringement into protected wetlands.
- No overnight camping or parking.
- No open fires.
- Stay on trails and away from stream banks.
- DO NOT DISTURB or FEED the wildlife. Quiet observation will result in a richer experience. These areas serve not only as living and traveling areas for animals and insect wildlife, but also where natural vegetation grows for their food and protection.

PLEASE NOTE: Due to historic mercury contamination upstream, no species caught in the Indian Head River should be eaten. Check current regulations prior to fishing in the Indian Head River.

About the Indian Head River Trail Coalition

The Indian Head River Coalition was created in 2017 for the purpose of preserving the historic and natural qualities of the contiguous conservation lands along the Indian Head River and engage the general public in taking advantage of passive recreational opportunities on these properties. The Coalition is composed of Wildlands Trust, the North and South Rivers Watershed Association, Plymouth County and the towns of Hanover, Hanson and Pembroke. In 2018, the group obtained a Recreational Trails Program (RTP) grant to provide trail maintenance, trail markings, amenity improvements, and new kiosks and interpretive signage along the 6-mile trail corridor that connects each property.



Luddam's Ford Park

Hanover, MA



Industrial Shores

Over 10,000 years ago, the Laurentide Ice Sheet melted, revealing the Indian Head and North River valleys. The Native Americans that lived in this area highly valued these rivers and relied upon them for drinking water, fishing, hunting, and as transportation corridors. Luddam's Ford was the easternmost foot crossing on the North River for the colonists that traveled through this area, and was named for James Luddam, the guide who carried Governor John Winthrop of the Massachusetts Bay Colony across the river to visit Governor William Bradford of Plymouth Colony in 1632.

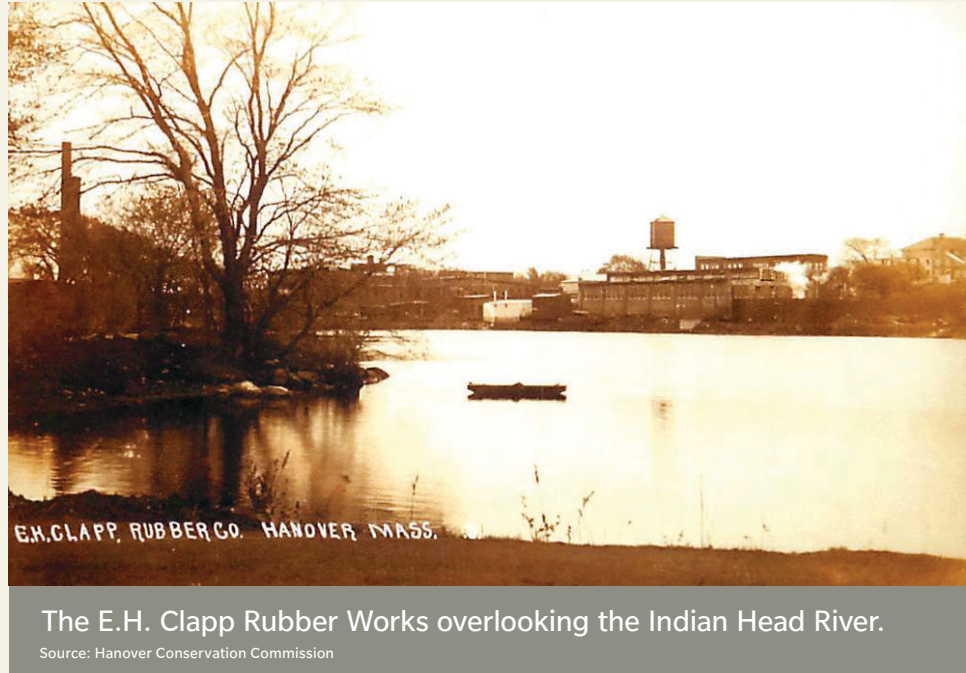
In the 1700s, a number of industries began popping up along the banks of the Indian Head River. In 1704, Thomas Bardin built a dam just above Luddam's Ford, as well as an anchor forge, which supplied the local shipyards. It is said that Bardin was the first to produce bar iron in New England. Subsequent owners of the iron works include Lemuel Dwelley, Benjamin Studley, and Lemuel Curtis. The company eventually became owned exclusively by the Curtis family, who continued to make anchors and do iron work in the shipyards. They employed 16 people and made 250 tons of anchors per year, each ranging in weight from 1000–10,000 lbs.



Eugene H. Clapp
1832-1900, Owner of E.H. Clapp Rubber Works

By 1873, the iron works had ceased operations and Eugene H. Clapp and his cousin Fred Clapp purchased the Curtis Anchor Forge building and opened a reclaimed rubber manufacturing plant, the E.H. Clapp Rubber Works. They remained partners until January 1, 1880, after Fred's death.

Originally harnessing only the power of the river for production, the one-story factory employed 3 men and housed 2 grinding machines. As business increased, the factory expanded to three floors and steam powered engines were installed to allow production to continue during times of short water supply. In 1881, the building was destroyed by fire and then, within a month's time, rebuilt on a much larger scale and included the best equipment available. In 1886, Clapp built another mill on the Pembroke side of the river and doubled its capacity in 1888 with an addition built onto the structure. By 1889, the mills employed 75-100 men and could grind 20 tons per day, 40 times more than when it started.



The E.H. Clapp Rubber Works overlooking the Indian Head River.
Source: National Geographic Magazine

Eventually, the mills closed and the land became Luddam's Ford Park; however, the dam remained, impacting the natural flow and ecology of the river, including native fish migration, many years after this industrial area returned to nature.

Transportation Along the River

A former railroad bed is the setting for the primary trail running through this property. The Hanover Branch Railroad extended 7.8 miles from Hanover's Four Corners through South and West Hanover, across Rockland to North Abington, where it connected with the Old Colony Railroad to Plymouth. Incorporated in 1846, and constructed over the better part of 20 years, it officially opened for service in 1868.



The Hanover Branch Station
A photograph of the Hanover Train Station in 1910.
Source: National Geographic Magazine

E. Y. Perry, who operated a large tack factory in South Hanover, was largely responsible for the creation of the railway. He also owned a general store and constructed the building in South Hanover that housed a series of a shoe factories – Goodrich, Cochran, and Shanley – and part of the E.H. Clapp Rubber Company.



A map showing the Old Colony Railroad network in 1893, including the Hanover station stop (marked with a star).

The railway was used to transport materials and finished products to and from these and other businesses, but also offered passenger service. In its latter years, when the businesses along its route had shut down, it continued to "carry passengers" via self-propelled cars.

The Old Colony Railroad absorbed the Hanover Branch in 1887, and in 1893, the New York, New Haven and Hartford Railroad took over the Old Colony Railroad lease. By the 1930s, railroad service dwindled significantly. Now, many of Massachusetts' former railroad beds are overseen by the state Department of Conservation and Recreation.

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